



YEARLY STATUS REPORT - 2020-2021

Part A	
Data of the Institution	
1.Name of the Institution	ZEAL EDUCATION SOCIETY'S ZEAL COLLEGE OF ENGINEERING AND RESEARCH
• Name of the Head of the institution	Dr. Ajit Madhukarrao Kate
• Designation	Principal
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	02067206106
• Mobile No:	9822014351
• Registered e-mail	principal.zcoer@zealeducation.com
• Alternate e-mail	ajit.kate@zealeducation.com
• Address	S. No. 39, Narhe, Pune
• City/Town	Pune
• State/UT	Maharashtra
• Pin Code	411041
2.Institutional status	
• Type of Institution	Co-education
• Location	Semi-Urban
• Financial Status	Self-financing

• Name of the Affiliating University	Savitribai Phule Pune University				
• Name of the IQAC Coordinator	Dr. Pralhad Prabhakar Walvekar				
• Phone No.	02067206133				
• Alternate phone No.	02067206159				
• Mobile	8975760046				
• IQAC e-mail address	iqac.zcoer@zealeducation.com				
• Alternate e-mail address	pralhad.walvekar@zealeducation.com				
3.Website address (Web link of the AQAR (Previous Academic Year)	https://zcoer.in/wp-content/uploads/2022/02/AQAR_2019-20.pdf				
4.Whether Academic Calendar prepared during the year?	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:	https://zcoer.in/academic-calendar/				
5.Accreditation Details					
Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	A	3.04	2017	27/11/2017	26/11/2022
6.Date of Establishment of IQAC			15/06/2016		
7.Provide the list of funds by Central / State Government UGC/CSIR/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.,					
Institutional/Department /Faculty	Scheme	Funding Agency	Year of award with duration	Amount	
NIL	NIL	NIL	NIL	0	
8.Whether composition of IQAC as per latest NAAC guidelines			Yes		
• Upload latest notification of formation of IQAC			View File		
9.No. of IQAC meetings held during the year			02		

<ul style="list-style-type: none"> Were the minutes of IQAC meeting(s) and compliance to the decisions have been uploaded on the institutional website? 	<p>Yes</p>	
<ul style="list-style-type: none"> If No, please upload the minutes of the meeting(s) and Action Taken Report 	<p>View File</p>	
<p>10. Whether IQAC received funding from any of the funding agency to support its activities during the year?</p>	<p>No</p>	
<ul style="list-style-type: none"> If yes, mention the amount 		
<p>11. Significant contributions made by IQAC during the current year (maximum five bullets)</p>		
<p>Medical insurance for COVID-19 to all employees</p>		
<p>All safety measures in campus premises strictly as per the guidelines received from government authorities</p>		
<p>Use of Microsoft Team as a common learning platform</p>		
<p>Establishment of recording facility to support the e-content development</p>		
<p>Use a learning tool of Project Based Learning (PBL) as a participative pedagogy.</p>		
<p>12. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year</p>		
<p>Plan of Action</p>	<p>Achievements/Outcomes</p>	
<p>E content development for online teaching learning process due to COVID-19 pandemic</p>	<p>Teaching learning process was continued and completed successfully by use of e content like videos, digital course material etc.</p>	
<p>Use a learning tool of Project Based Learning (PBL) as a participative pedagogy.</p>	<p>All newly admitted students developed projects based on fundamentals of sciences and engineering.</p>	
<p>13. Whether the AQAR was placed before statutory body?</p>	<p>Yes</p>	

- Name of the statutory body

Name	Date of meeting(s)
College Development Committee	25/04/2022

14. Whether institutional data submitted to AISHE

Year	Date of Submission
2020	19/01/2022

Extended Profile

1. Programme

1.1	811
Number of courses offered by the institution across all programs during the year	

File Description	Documents
Data Template	View File

2. Student

2.1	1415
Number of students during the year	

File Description	Documents
Data Template	View File

2.2	61
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	

File Description	Documents
Data Template	View File

2.3	1026
Number of outgoing/ final year students during the year	

File Description	Documents
Data Template	View File

3.Academic

3.1	180
Number of full time teachers during the year	

File Description	Documents
Data Template	View File

3.2	180
Number of Sanctioned posts during the year	

File Description	Documents
Data Template	View File

4.Institution

4.1	51
Total number of Classrooms and Seminar halls	

4.2	1602.25493
Total expenditure excluding salary during the year (INR in lakhs)	

4.3	1301
Total number of computers on campus for academic purposes	

Part B

CURRICULAR ASPECTS

1.1 - Curricular Planning and Implementation

1.1.1 - The Institution ensures effective curriculum delivery through a well planned and documented process

Following are some of the changes incorporated in AY 2020-21 for well-planned curriculum delivery and documentation.

1. Due to the outbreak of COVID-19, the teaching-learning process was conducted through virtual mode using Microsoft Team as an online

platform.

2. The videos were prepared and developed using a recording facility and made available to the students as a part of effective curriculum delivery.

3. The practicals were conducted using virtual laboratories of IIT, Roorkee, IIT, Bombay, IIT Madras, and Amruta University.

4. Various tools like assignments, unit tests, MCQ tests, viva, seminar/project review presentations, etc. were used for the assessment of course outcomes.

5. The academic audit was conducted to ensure effective curriculum delivery.

File Description	Documents
Upload relevant supporting document	No File Uploaded
Link for Additional information	Nil

1.1.2 - The institution adheres to the academic calendar including for the conduct of Continuous Internal Evaluation (CIE)

The academic calendar of the Institute is prepared aligned with the academic calendar of Savitribai Phule Pune University (SPPU) prior to the commencement of each semester. The academic calendar of each Department is prepared aligned with the academic calendar of the Institute. The academic calendar includes commencement and conclusion of teaching, other academic activities such as student feedback, unit test schedule, project-based learning, parent-teacher meet, alumni, meet, etc.

Due to the outbreak of COVID-19, the schedule of formative and summative examinations is not provided at the commencement of each semester by SPPU. The examinations are conducted as per the guidelines of SPPU from time to time.

File Description	Documents
Upload relevant supporting documents	No File Uploaded
Link for Additional information	Nil

<p>1.1.3 - Teachers of the Institution participate in following activities related to curriculum development and assessment of the affiliating University and/are represented on the following academic bodies during the year. Academic council/BoS of Affiliating University Setting of question papers for UG/PG programs Design and Development of Curriculum for Add on/ certificate/ Diploma Courses Assessment /evaluation process of the affiliating University</p>	<p>B. Any 3 of the above</p>
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File Description	Documents
Details of participation of teachers in various bodies/activities provided as a response to the metric	View File
Any additional information	No File Uploaded

1.2 - Academic Flexibility

1.2.1 - Number of Programmes in which Choice Based Credit System (CBCS)/ elective course system has been implemented

1.2.1.1 - Number of Programmes in which CBCS/ Elective course system implemented

31

File Description	Documents
Any additional information	No File Uploaded
Minutes of relevant Academic Council/ BOS meetings	No File Uploaded
Institutional data in prescribed format (Data Template)	View File

1.2.2 - Number of Add on /Certificate programs offered during the year

1.2.2.1 - How many Add on /Certificate programs are added during the year. Data requirement for year: (As per Data Template)

6

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File Description	Documents
Any additional information	No File Uploaded
Brochure or any other document relating to Add on /Certificate programs	No File Uploaded
List of Add on /Certificate programs (Data Template)	View File

1.2.3 - Number of students enrolled in Certificate/ Add-on programs as against the total number of students during the year

885

1.2.3.1 - Number of students enrolled in subject related Certificate or Add-on programs during the year

885

File Description	Documents
Any additional information	No File Uploaded
Details of the students enrolled in Subjects related to certificate/Add-on programs	View File

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates crosscutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum

Being the affiliated institute, the institute implements the curriculum prescribed by Savitribai Phule Pune University (SPPU), Pune. The curriculum is revised periodically considering all the cross-cutting issues relevant to professional ethics, gender, human values, environment, and sustainability.

File Description	Documents
Any additional information	No File Uploaded
Upload the list and description of courses which address the Professional Ethics, Gender, Human Values, Environment and Sustainability into the Curriculum	View File

1.3.2 - Number of courses that include experiential learning through project work/field

work/internship during the year

15

File Description	Documents
Any additional information	No File Uploaded
Programme / Curriculum/ Syllabus of the courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	No File Uploaded
MoU's with relevant organizations for these courses, if any	No File Uploaded
Number of courses that include experiential learning through project work/field work/internship (Data Template)	View File

1.3.3 - Number of students undertaking project work/field work/ internships

41

File Description	Documents
Any additional information	No File Uploaded
List of programmes and number of students undertaking project work/field work/ /internships (Data Template)	View File

1.4 - Feedback System

1.4.1 - Institution obtains feedback on the syllabus and its transaction at the institution from the following stakeholders Students Teachers Employers Alumni

C. Any 2 of the above

File Description	Documents
URL for stakeholder feedback report	No File Uploaded
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management (Upload)	No File Uploaded
Any additional information(Upload)	No File Uploaded

1.4.2 - Feedback process of the Institution may be classified as follows

B. Feedback collected, analyzed and action has been taken

File Description	Documents
Upload any additional information	No File Uploaded
URL for feedback report	https://zcoer.in/feedback/

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment Number Number of students admitted during the year

2.1.1.1 - Number of sanctioned seats during the year

1534

File Description	Documents
Any additional information	No File Uploaded
Institutional data in prescribed format	View File

2.1.2 - Number of seats filled against seats reserved for various categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy during the year (exclusive of supernumerary seats)

2.1.2.1 - Number of actual students admitted from the reserved categories during the year

645

File Description	Documents
Any additional information	No File Uploaded
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses the learning levels of the students and organizes special Programmes for advanced learners and slow learners

The institute has a mechanism to assess the learning levels of the students and to identify advanced and slow learners.

Course-wise slow learners are identified based on class test results (40%), laboratory performance (30%) in consultation with lab course faculty, previous university results (30%). For FE, Semester-I, slow learners are identified based on class test results (60%), laboratory performance (40%) in consultation with lab course faculty. Based on the above-mentioned parameters, students having marks above 60% would be identified as Slow Learners, below 30% would be identified as advanced learners.

The course-specific extra sessions are scheduled every Saturday after class test I. The task (assignment) is assigned to slow learners and ensures its assessment after completion of the task before the next session next Saturday. The activity is continued till the slow learner converts into the average category.

Advanced assignments having higher levels of Bloom's taxonomy are allotted to advanced learners and get it completed.

Course-specific co-curricular activities like NPTEL/Advanced courses/ Seminars/Conferences/Technical Events/ Model making competition/ industrial visits /industry-sponsored internships, etc. are recommended to advanced learners. The activity completion is ensured before the end of the ongoing semester.

File Description	Documents
Link for additional Information	https://zcoer.in/wp-content/uploads/2022/03/Academic-Process-manual.pdf
Upload any additional information	No File Uploaded

2.2.2 - Student- Full time teacher ratio (Data for the latest completed academic year)

Number of Students	Number of Teachers
3626	180

File Description	Documents
Any additional information	No File Uploaded

2.3 - Teaching- Learning Process

2.3.1 - Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Following is the qualitative change that has been introduced in AY 2020-21 in addition to previous student-centric methods for enhancing learning experiences.

For a better learning experience, along with traditional classroom teaching and laboratory learning; project-based learning has been introduced with an objective to motivate students to learn by working in groups cooperatively to solve a problem.

The group of 4-6 students is formed and assigned to a faculty mentor to plan, manage and complete a task/project/activity which addresses the stated problem. A problem may be theoretical, practical, social, technical, symbolic, cultural, and/or scientific and grows out of students' wondering within different disciplines and professional environments.

All activities are assessed regularly. Continuous assessment is carried out by all mentors. Following are the recommended parameters for assessment, evaluation, and weightage.

Idea Inception (5%), Outcomes of PBL/ Problem Solving Skills/ Solution provided/ Final product (50%), Documentation (25%), Demonstration (10%), Contest Participation/ publication (5%), Awareness /Consideration of -Environment/ Social /Ethics/ Safety measures/Legal aspects (5%).

File Description	Documents
Upload any additional information	No File Uploaded
Link for additional information	https://www.youtube.com/c/ZealInstitutes/vid_eos

2.3.2 - Teachers use ICT enabled tools for effective teaching-learning process. Write description in maximum of 200 words

Following are the additional ICT tools that have been introduced in AY 2020-21 in addition to previous tools for enhancing learning experiences.

Ø Animated PowerPoint Presentation (PPTs).

Ø Animated videos.

Ø Access to study material in LMS.

Ø Use of Microsoft Teams for real-time teaching-learning, monitoring, and online assessment.

Ø LMS (learn.thezealacademy.com) and MS Teams for Assignments, Notes, E-content, etc.

Ø MS Teams for attendance, feedback, etc.

Ø Use of Open Source Software

File Description	Documents
Upload any additional information	No File Uploaded
Provide link for webpage describing the ICT enabled tools for effective teaching-learning process	https://learn.thezealacademy.com/

2.3.3 - Ratio of mentor to students for academic and other related issues (Data for the latest completed academic year)

2.3.3.1 - Number of mentors

180

File Description	Documents
Upload, number of students enrolled and full time teachers on roll.	View File
Circulars pertaining to assigning mentors to mentees	View File
mentor/mentee ratio	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of full time teachers against sanctioned posts during the year

180

File Description	Documents
Full time teachers and sanctioned posts for year (Data Template)	View File
Any additional information	No File Uploaded
List of the faculty members authenticated by the Head of HEI	View File

2.4.2 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.B Superspeciality / D.Sc. / D.Litt. during the year (consider only highest degree for count)

2.4.2.1 - Number of full time teachers with Ph. D. / D.M. / M.Ch. /D.N.C Superspeciality / D.Sc. / D.Litt. during the year

26

File Description	Documents
Any additional information	No File Uploaded
List of number of full time teachers with Ph. D. / D.M. / M.Ch./ D.N.B Super specialty / D.Sc. / D.Litt. and number of full time teachers for year(Data Template)	View File

2.4.3 - Number of years of teaching experience of full time teachers in the same institution (Data for the latest completed academic year)

2.4.3.1 - Total experience of full-time teachers

694

File Description	Documents
Any additional information	No File Uploaded
List of Teachers including their PAN, designation, dept. and experience details(Data Template)	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Mechanism of internal assessment is transparent and robust in terms of frequency and mode. Write description within 200 words.

Following is the change that has been introduced in AY 2020-21 due to the online mode of teaching-learning in addition to the previous mechanism of internal assessment.

Due to the outbreak of COVID-19, the online mode of teaching-learning is practiced in AY 2020-21. The existing mechanism of internal assessment is carried out using an online learning platform- Microsoft Team.

File Description	Documents
Any additional information	No File Uploaded
Link for additional information	Nil

2.5.2 - Mechanism to deal with internal examination related grievances is transparent, time- bound and efficient

The institute has a transparent, time-bound, and efficient mechanism to address the grievances related to the internal examination.

The answer sheets are shown to students after evaluation within 02 days. The subject faculty addresses the queries raised by students if any and makes the changes accordingly in the internal examination assessment.

File Description	Documents
Any additional information	No File Uploaded
Link for additional information	Nil

2.6 - Student Performance and Learning Outcomes

2.6.1 - Teachers and students are aware of the stated Programme and course outcomes of the Programmes offered by the institution.

Every faculty should be aware of program outcomes (POs) and course outcomes (COs) in outcome-based education. Every newly joined faculty is made aware of POs and COs through induction sessions organized in Department.

The newly admitted students are made aware of POs and COs during the induction program. Each subject is introduced to students by subject faculty by discussing COs. The course exit survey is conducted at the end of each semester.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	Nil
Upload COs for all courses (exemplars from Glossary)	View File

2.6.2 - Attainment of Programme outcomes and course outcomes are evaluated by the institution.

The Course Outcomes (COs) are defined for each course using Bloom Taxonomy Levels. COs are mapped with Program Outcomes (POs) in terms of level of mapping as

- a. Slight (Low) 1
- b. Moderate (Medium) 2
- c. Substantial (High) 3

The Direct and Indirect assessment tools are used for determining the CO-PO attainment. The weightages for direct and indirect assessment tools are 90% and 10% respectively.

Direct Assessment Tools are classified as internal and external assessment tools. The weightages for internal and external assessment tools are 70% and 30% respectively. Various internal assessment tools like assignments, unit/ class/ preliminary tests, quiz/ oral/ viva, seminar-project reviews, and lab performance are used. The external assessment tools are examination heads like in-semester, end-semester examination, term work, practical/ oral examination conducted by Savitribai Phule Pune University. Indirect

assessment tools used like course exit survey, graduate exit survey, alumni survey, employer survey, co-curricular and extra-curricular activities etc.

In this way attainment of Programme Outcomes and Course Outcomes are evaluated.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional information	Nil

2.6.3 - Pass percentage of Students during the year

2.6.3.1 - Total number of final year students who passed the university examination during the year

1026

File Description	Documents
Upload list of Programmes and number of students passed and appeared in the final year examination (Data Template)	View File
Upload any additional information	No File Uploaded
Paste link for the annual report	https://zcoer.in/wp-content/uploads/2022/01/2.6.3_compressed.pdf

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire) (results and details need to be provided as a weblink)

https://zcoer.in/wp-content/uploads/2022/03/2.7.1_compressed.pdf

RESEARCH, INNOVATIONS AND EXTENSION

3.1 - Resource Mobilization for Research

3.1.1 - Grants received from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

3.1.1.1 - Total Grants from Government and non-governmental agencies for research projects / endowments in the institution during the year (INR in Lakhs)

03

File Description	Documents
Any additional information	No File Uploaded
e-copies of the grant award letters for sponsored research projects /endowments	View File
List of endowments / projects with details of grants(Data Template)	View File

3.1.2 - Number of departments having Research projects funded by government and non government agencies during the year

3.1.2.1 - Number of departments having Research projects funded by government and non-government agencies during the year

03

File Description	Documents
List of research projects and funding details (Data Template)	View File
Any additional information	No File Uploaded
Supporting document from Funding Agency	View File
Paste link to funding agency website	Nil

3.1.3 - Number of Seminars/conferences/workshops conducted by the institution during the year

3.1.3.1 - Total number of Seminars/conferences/workshops conducted by the institution during the year

1

File Description	Documents
Report of the event	No File Uploaded
Any additional information	No File Uploaded
List of workshops/seminars during last 5 years (Data Template)	View File

3.2 - Research Publications and Awards

3.2.1 - Number of papers published per teacher in the Journals notified on UGC website during the year

3.2.1.1 - Number of research papers in the Journals notified on UGC website during the year

38

File Description	Documents
Any additional information	No File Uploaded
List of research papers by title, author, department, name and year of publication (Data Template)	View File

3.2.2 - Number of books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during the year

3.2.2.1 - Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings during the year

20

File Description	Documents
Any additional information	No File Uploaded
List books and chapters edited volumes/ books published (Data Template)	View File

3.3 - Extension Activities

3.3.1 - Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year

Following are the extension activities carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during AY 2020-21.

1. Mask manufacturing and distribution activity is carried out from 01.06.2020 to 30.06.2020. The conduction of this activity sensitized students to the outbreak of COVID-19 thereby producing a social responsibility among them.
2. Tree conservation activity is carried out on the occasion of Savitribai Phule birth anniversary celebration on 03.01.2021. The activity sensitized students to the conservation of the earth by

saving trees.

A visit to Varoti village is done for reviewing the work conducted in an NSS camp in AY 2019-20. The review work sensitized students to social work satisfaction.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

3.3.2 - Number of awards and recognitions received for extension activities from government / government recognized bodies during the year

3.3.2.1 - Total number of awards and recognition received for extension activities from Government/ government recognized bodies during the year

01

File Description	Documents
Any additional information	No File Uploaded
Number of awards for extension activities in last 5 year(Data Template)	View File
e-copy of the award letters	View File

3.3.3 - Number of extension and outreach programs conducted by the institution through NSS/NCC/Red cross/YRC etc., (including the programmes such as Swachh Bharat, AIDS awareness, Gender issues etc. and/or those organized in collaboration with industry, community and NGOs) during the year

3.3.3.1 - Number of extension and outreach Programs conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

3

File Description	Documents
Reports of the event organized	View File
Any additional information	No File Uploaded
Number of extension and outreach Programmes conducted with industry, community etc for the last year (Data Template)	View File

3.3.4 - Number of students participating in extension activities at 3.3.3. above during the year

3.3.4.1 - Total number of Students participating in extension activities conducted in collaboration with industry, community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the year

160

File Description	Documents
Report of the event	View File
Any additional information	No File Uploaded
Number of students participating in extension activities with Govt. or NGO etc (Data Template)	View File

3.4 - Collaboration

3.4.1 - The Institution has several collaborations/linkages for Faculty exchange, Student exchange, Internship, Field trip, On-the- job training, research etc during the year

05

File Description	Documents
e-copies of linkage related Document	View File
Details of linkages with institutions/industries for internship (Data Template)	View File
Any additional information	No File Uploaded

3.4.2 - Number of functional MoUs with national and international institutions, universities, industries, corporate houses etc. during the year

3.4.2.1 - Number of functional MoUs with Institutions of national, international importance, other universities, industries, corporate houses etc. during the year

05

File Description	Documents
e-Copies of the MoUs with institution./ industry/corporate houses	View File
Any additional information	No File Uploaded
Details of functional MoUs with institutions of national, international importance, other universities etc during the year	View File

INFRASTRUCTURE AND LEARNING RESOURCES

4.1 - Physical Facilities

4.1.1 - The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

No new strategies are adopted in AY 2020-21 as the existing facilities are more than adequate and utilized almost optimally.

However, due to the outbreak of COVID-19, the online mode of teaching-learning is practiced in AY 2020-21. The recording facility is established to produce and develop e-content for the benefit of the students.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil

4.1.2 - The Institution has adequate facilities for cultural activities, sports, games (indoor, outdoor), gymnasium, yoga centre etc.

Due to the outbreak of COVID-19, the online mode of teaching-learning is practiced in AY 2020-21. So, no new facility is established in AY 2020-21 as the existing facilities are more than adequate and utilized almost optimally.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	Nil

4.1.3 - Number of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc.

52

4.1.3.1 - Number of classrooms and seminar halls with ICT facilities

52

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure, excluding salary for infrastructure augmentation during the year (INR in Lakhs)

4.1.4.1 - Expenditure for infrastructure augmentation, excluding salary during the year (INR in lakhs)

1602.25493

File Description	Documents
Upload any additional information	No File Uploaded
Upload audited utilization statements	No File Uploaded
Upload Details of budget allocation, excluding salary during the year (Data Template)	View File

4.2 - Library as a Learning Resource

4.2.1 - Library is automated using Integrated Library Management System (ILMS)

Name of the ILMSsoftware -Autolib

Nature of automation (fullyor partially) - Fully automation

Version -AutoLib -NG

Year of automation - 2012

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for Additional Information	https://zcoer.in/central-library/

4.2.2 - The institution has subscription for the following e-resources e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access toe-resources

A. Any 4 or more of the above

File Description	Documents
Upload any additional information	No File Uploaded
Details of subscriptions like e-journals,e-ShodhSindhu, Shodhganga Membership etc (Data Template)	View File

4.2.3 - Expenditure for purchase of books/e-books and subscription to journals/e- journals during the year (INR in Lakhs)

4.2.3.1 - Annual expenditure of purchase of books/e-books and subscription to journals/e-journals during the year (INR in Lakhs)

5.67834

File Description	Documents
Any additional information	No File Uploaded
Audited statements of accounts	View File
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	View File

4.2.4 - Number per day usage of library by teachers and students (foot falls and login data for online access) (Data for the latest completed academic year)

4.2.4.1 - Number of teachers and students using library per day over last one year

5

File Description	Documents
Any additional information	No File Uploaded
Details of library usage by teachers and students	View File

4.3 - IT Infrastructure

4.3.1 - Institution frequently updates its IT facilities including Wi-Fi

No new updates are adopted in AY 2020-21 as the existing facilities are more than adequate and utilized almost optimally.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Number of Computers

1301

File Description	Documents
Upload any additional information	No File Uploaded
Student – computer ratio	View File

4.3.3 - Bandwidth of internet connection in the Institution

A. ? 50MBPS

File Description	Documents
Upload any additional Information	No File Uploaded
Details of available bandwidth of internet connection in the Institution	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of infrastructure (physical and academic support facilities) excluding salary component during the year (INR in Lakhs)

4.4.1.1 - Expenditure incurred on maintenance of infrastructure (physical facilities and academic support facilities) excluding salary component during the year (INR in lakhs)

51.36628

File Description	Documents
Upload any additional information	No File Uploaded
Audited statements of accounts.	View File
Details about assigned budget and expenditure on physical facilities and academic support facilities (Data Templates)	View File

4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

The institute has established systems and procedures for maintaining and utilizing physical, academic, and support facilities - laboratory, library, sports complex, computers, classrooms, etc. The overall housekeeping was outsourced to an external agency named Duster. The estate manager used to take reviews of housekeeping work regularly. The non-compatible computers for the updated syllabus were written off and new computers were purchased for utilization and to meet the current syllabus demand. The annual maintenance contract (AMC) was given for common facilities like lifts, batteries, etc.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional information	https://zcoer.in/wp-content/uploads/2021/09/Bulding-Infrastructure-Process-manual Admin.pdf

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year	
5.1.1.1 - Number of students benefited by scholarships and free ships provided by the Government during the year	
3129	
File Description	Documents
Upload self attested letter with the list of students sanctioned scholarship	No File Uploaded
Upload any additional information	No File Uploaded
Number of students benefited by scholarships and free ships provided by the Government during the year (Data Template)	View File
5.1.2 - Number of students benefitted by scholarships, free ships etc. provided by the institution / non- government agencies during the year	
5.1.2.1 - Total number of students benefited by scholarships, free ships, etc provided by the institution / non- government agencies during the year	
39	
File Description	Documents
Upload any additional information	No File Uploaded
Number of students benefited by scholarships and free ships institution / non- government agencies in last 5 years (Date Template)	View File
5.1.3 - Capacity building and skills enhancement initiatives taken by the institution include the following: Soft skills Language and communication skills Life skills (Yoga, physical fitness, health and hygiene) ICT/computing skills	A. All of the above

File Description	Documents
Link to institutional website	https://zcoer.in/wp-content/uploads/2022/03/5.1.3.pdf
Any additional information	No File Uploaded
Details of capability building and skills enhancement initiatives (Data Template)	View File

5.1.4 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

265

5.1.4.1 - Number of students benefitted by guidance for competitive examinations and career counseling offered by the institution during the year

265

File Description	Documents
Any additional information	No File Uploaded
Number of students benefitted by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The Institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases Implementation of guidelines of statutory/regulatory bodies Organization wide awareness and undertakings on policies with zero tolerance Mechanisms for submission of online/offline students' grievances Timely redressal of the grievances through appropriate committees

A. All of the above

File Description	Documents
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View File
Upload any additional information	No File Uploaded
Details of student grievances including sexual harassment and ragging cases	No File Uploaded

5.2 - Student Progression

5.2.1 - Number of placement of outgoing students during the year

5.2.1.1 - Number of outgoing students placed during the year

370

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	No File Uploaded

5.2.2 - Number of students progressing to higher education during the year

5.2.2.1 - Number of outgoing student progression to higher education

16

File Description	Documents
Upload supporting data for student/alumni	No File Uploaded
Any additional information	No File Uploaded
Details of student progression to higher education	View File

5.2.3 - Number of students qualifying in state/national/ international level examinations during the year (eg: JAM/CLAT/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations)

5.2.3.1 - Number of students qualifying in state/ national/ international level examinations (eg: JAM/CLAT/NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government

examinations) during the year

12

File Description	Documents
Upload supporting data for the same	View File
Any additional information	No File Uploaded

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national / international level (award for a team event should be counted as one) during the year

5.3.1.1 - Number of awards/medals for outstanding performance in sports/cultural activities at university/state/ national / international level (award for a team event should be counted as one) during the year.

0

File Description	Documents
e-copies of award letters and certificates	No File Uploaded
Any additional information	No File Uploaded
Number of awards/medals for outstanding performance in sports/cultural activities at university/state/national/international level (During the year) (Data Template)	View File

5.3.2 - Institution facilitates students' representation and engagement in various administrative, co-curricular and extracurricular activities (student council/ students representation on various bodies as per established processes and norms)

The institution has a student council that engages in various co-curricular and extra-curricular activities. In addition, the institution has various cells and committees for smooth conduction of administrative, co-curricular, and extra-curricular activities. Every cell/ committee has a student representation and engagement in administrative, co-curricular and extra-curricular activities.

In all, there are 21 cells/ committees wherein 126 students are involved in the engagement of administrative, co-curricular, and extra-curricular activities.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

5.3.3 - Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions)

5.3.3.1 - Number of sports and cultural events/competitions in which students of the Institution participated during the year

0

File Description	Documents
Report of the event	No File Uploaded
Upload any additional information	No File Uploaded
Number of sports and cultural events/competitions in which students of the Institution participated during the year (organized by the institution/other institutions) (Data Template)	View File

5.4 - Alumni Engagement

5.4.1 - There is a registered Alumni Association that contributes significantly to the development of the institution through financial and/or other support services

Following are significant contributions of the alumni association during AY 2020-21.

Due to the outbreak of COVID-19, the online mode of teaching-learning is practiced in AY 2020-21. The alumni association contributed to conducting online activities like alumni meet, virtual industrial visits, webinars, training programs, alumni interaction sessions, etc.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

5.4.2 - Alumni contribution during the year (INR in Lakhs)	C. 3 Lakhs - 4Lakhs
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File Description	Documents
Upload any additional information	No File Uploaded

GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 - Institutional Vision and Leadership

6.1.1 - The governance of the institution is reflective of and in tune with the vision and mission of the institution

The institution is governed in a participatory manner, with all stakeholders actively involved in its administration. The governing body delegates authority to the next level employees for execution. It is shared by the secretary, director and principal, who then share it with the other levels. In the institute, there are many functionaries like department heads, coordinators and conveners of various committees and cell representatives. They have significant role to play in decision making bodies and developing institutional policies and putting them into action.

The governing body and the principal collaborate on developing and implementing an institutional quality policy. The institute's various administrative and academic committees are efficiently regulated through the establishment of required entities such as the IQAC, AMC, ICC, GRC, purchase committee and others with well-defined duties and principles in line with the institute's vision and long term goals.

Teachers have a vital role in carrying out the institute's vision and mission statements, short term and long term goals. They participate actively in the decision-making process as an outcome. Heads of departments have an administrative and academic freedom when it comes to operating their disciplinary units.

Teachers are also members and conveners of the many committees

established for the institute's day-to-day operations. The Academic monitoring committee, examination committee, admission committee, library committee, research and development are some of the examples of these committees. Teachers can make a substantial contribution to the institution's participative ethos through their personal and independent participation on these bodies. Admission standards, grade cut-offs, internal exam formats, library procedures, various teaching-learning innovations and other academic priorities are all determined by them.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.1.2 - The effective leadership is visible in various institutional practices such as decentralization and participative management.

In all three key pillars of the institute namely academics, administration, and extra-curricular activities, ZCOER pursue the principle of decentralization in its genuine definition.

Through a strong and efficient organogram of committees, which includes various cells and committees, the institute's decentralization and participatory management practices are reflected in all of the college activities.

All of the institute's primary stakeholders, including management, governing body, principal, teaching and non-teaching staff, parents, students, and alumni cooperate in a democratic manner to carry out their tasks and obligations, adhering to the unspoken principles of responsibility.

Udaan, the institute's annual cultural festival, showcases decentralization and participatory management in its entity.

The primary goal of decentralization in this case is to reorient organizational culture, thin out the official hierarchy, increase opportunities for teachers and students to contribute meaningfully, enrich the decision-making process, and foster greater democratic professionalism, as well as competent event management.

Students, non-teaching staff, and teachers collaborate as active participants in the event's management. The Principal of the

institute consults with staff and student representatives to strengthen the concept of participatory decision-making.

In Udaan, decentralization of administration refers to a process in which students are allowed freely to make decisions on resource allocation, financial management, programme execution and security measures, among other things. This type of decentralization helps students to be more accountable, responsive, sensitive, and proactive in their planning and execution in a democratic and participatory atmosphere.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ perspective plan is effectively deployed

The institutional perspective plan is in line with the institution's vision and goal, which serve as ongoing motivation for bettering academic quality policies and procedures.

Various bodies and committees that make up the institution's organogram lay out a strategic plan of events and activities that will support growth and development in key areas at the start of the academic year, and at the end of the year. A review of the implementation and outcomes of the perspective plans is conducted.

Teaching-learning is one such wide area in which the institutional perspective and strategic plan has been successfully implemented. This was accomplished by implementing an action plan for the following initiatives:

1. The department heads recommends and conducts unique add-on/certificate courses.
2. Student exchange programs in collaboration with foreign universities.
3. MoUs signed with industrial sectors for training, development and placement.
4. Introduction of new UG programs in Artificial Intelligence and

Data Science, Robotics and Automation.

5. Emphasis on using the ICT tools for effective teaching and learning.

File Description	Documents
Strategic Plan and deployment documents on the website	No File Uploaded
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.2.2 - The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment and service rules, procedures, etc.

Zeal College of Engineering and Research, under umbrella of Zeal Education Society operates all academic and administrative activities through well-structured organogram. Institute is affiliated to Savitribai Phule Pune University, Pune and abide to follow rules laid by statutory bodies like Directorate of Technical Education, Maharashtra State and AICTE, Delhi. For smooth conduction, monitoring and periodic reviews; various committees and cells are formed.

To percolate vision and mission of Zeal Education Society, the general body consisting Secretary -ZES; Representative Members of all stakeholders and principal exists. The major role of this body is to organize the teaching learning process in the college and to determine the requirements of the college for smooth operations.College Development Committee (CDC) is the body, works bellow General Body andheld accountable for the daily activities of the organization. CDC provides budget and works for various other matters relating to the internal management of the college. Director - Admission, academics and Administration monitors all the activities and provides support to all stakeholders wherever necessary.

The principal, who will report to Director - Admission, academics and Administration; for all kind of support, suggestions and feedback regarding institute activities. Internal Quality Assurance Cell (IQAC); is another cell to initiate, plan and supervise various activities which are necessary to increase the quality of the education imparted in an institution or college.

For smooth execution of all planned activities various positions have been formed like Institute Academic Coordinator, Institute Research and Development Coordinator, Institute Student Welfare Coordinator, Administrative Office Superintendent, Training and Placement Officer, Controller of Examination, Librarian and Network Administrator.

Content development coordinator, all heads of the departments and academic monitoring committee coordinator will work with the help of academic coordinator, domain coordinator, class teachers, Gardian faculty members and subject teachers.

Controller of examination and office superintendent will monitor all the activities of examination section, establishment, student welfare, transportation, Student scholarships, purchase and stocks, audits, gymnasium, etc.

Training and placement officer will work for student's trainings, internship programs and placements with the team of department coordinators, trainers, and coordinators of industry - institute interaction cell, alumni association, National and international relation cell, etc.

Institute student welfare Coordinator will be responsible to provide all facilities to student with the help of student cells / clubs / associations' coordinator, NSS coordinator, Cultural and sports coordinator, etc.

File Description	Documents
Paste link for additional information	Nil
Link to Organogram of the Institution webpage	https://zcoer.in/zcoer-organogram/
Upload any additional information	No File Uploaded

6.2.3 - Implementation of e-governance in areas of operation Administration Finance and Accounts Student Admission and Support Examination	B. Any 3 of the above
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File Description	Documents
ERP (Enterprise Resource Planning) Document	View File
Screen shots of user interfaces	No File Uploaded
Any additional information	No File Uploaded
Details of implementation of e-governance in areas of operation, Administration etc (Data Template)	View File

6.3 - Faculty Empowerment Strategies

6.3.1 - The institution has effective welfare measures for teaching and non- teaching staff

The institution has effective welfare measures for teaching and non-teaching staff as given below.

1. Driver's accidental policy
2. Fees redemption up to 20% for wards of staff
3. Paid study leaves
4. Covid-19 insurance cover for staff

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.3.2 - Number of teachers provided with financial support to attend conferences/ workshops and towards membership fee of professional bodies during the year

6.3.2.1 - Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies during the year

02

File Description	Documents
Upload any additional information	View File
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

6.3.3 - Number of professional development /administrative training programs organized by the institution for teaching and non-teaching staff during the year

6.3.3.1 - Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff during the year

0

File Description	Documents
Reports of the Human Resource Development Centres (UGCASC or other relevant centres).	No File Uploaded
Reports of Academic Staff College or similar centers	No File Uploaded
Upload any additional information	No File Uploaded
Details of professional development / administrative training Programmes organized by the University for teaching and non teaching staff (Data Template)	View File

6.3.4 - Number of teachers undergoing online/face-to-face Faculty development Programmes (FDP) during the year (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course etc.)

6.3.4.1 - Total number of teachers attending professional development Programmes viz., Orientation / Induction Programme, Refresher Course, Short Term Course during the year

63

File Description	Documents
IQAC report summary	View File
Reports of the Human Resource Development Centres (UGCASC or other relevant centers)	No File Uploaded
Upload any additional information	No File Uploaded
Details of teachers attending professional development programmes during the year (Data Template)	View File

6.3.5 - Institutions Performance Appraisal System for teaching and non- teaching staff

Every year, the college requires faculty members to submit a self-evaluation form. This gives insight into one's own appraisal of the teaching success and impact on the students. It focuses on how the teacher responds to various events that affect the students' learning process. It also reveals the teacher's involvement in both academic and administrative tasks. A teacher might use this form to show off his or her ongoing professional development (paper presentations, publications, seminars and conferences attended, research grants and so on).

Department heads compile data for teacher evaluation of teaching-learning activities, which is then provided to the Principal in the form of departmental audit reports.

Teachers who are informed about their performance at each level can use the performance appraisal to advance their career. Teachers are encouraged to upgrade themselves if there is room for improvement on their part. This is necessary for later promotions in accordance with the rules. The entire procedure is carried out in complete secrecy. The appropriate teacher is notified, and suggestions are given. The punctuality, sincerity, documentation skill, professionalism etc. are the criteria in performance appraisal system for teaching and non- teaching staff.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly Enumerate the various internal and external financial audits carried out during the year with the mechanism for settling audit objections within a maximum of 200 words

The Institution has established a mechanism for conducting internal and external audits on the financial transactions every year to ensure financial compliance. Internal audit is conducted quarterly by the internal Audit Committee of the Society. All vouchers are audited by an internal financial committee on quarterly basis. The expenses incurred under different heads are thoroughly checked by verifying the bills and vouchers, the internal audit committee also verify the all expenses incurred by the institutes as per the budget sanctioned by the Management of the Society. If any discrepancy is found, the same is brought to the notice of the principal.

The internal auditor shall evaluate and confirm the effectiveness of internal system of accounting of the receipts. The internal auditor should verify that the fees are collected from all the students and if there is any concession, the same is granted by a person who is so authorized. The internal auditor should also ensure that the fees received in advance and fees receivable are properly accounted and irrecoverable fees are written-off under the authorization of the appropriate person. There has been no major objection in financial auditing, minor errors or omissions when pointed out by the audit team are immediately corrected / rectified and precautionary steps are taken to avoid recurrence of such errors in future. The details of all the expenditures / transactions of the entire financial year is consolidated and maintained at the accounts office and submitted for external audit at the end of the financial year.

External audit of the institution is conducted once in a year post March 31st, by the chartered accountants as per the government rules. The External Auditor expresses their opinion on the financial Statements of the Institution based on their Audit. They conduct the Audit in accordance with Standards on Auditing issued by the Institute of Chartered Accountants of India. The Audit involves performing procedures to obtain audit evidences about the amounts and disclosure in financial Statements. They perform the audit to obtain reasonable assurance about the financial statements, free from Material Misstatements. The Auditors also evaluate the appropriateness of accounting policies used and reasonableness of the accounting estimates made by the management as well as evaluating the overall presentation of financial statement.

The auditor ensures that all payments are duly authorized after the audit, the report is sent to the management for review. Any queries, in the process of audit would be attended immediately along with the supporting documents within the prescribed time limits. All these mechanisms exhibit the transparency being maintained in financial matters and adherence to financial discipline to avoid defalcation of funds or properties of the institution at all levels. The audited statement is duly signed by the authorities of the management and chartered accountant. Audited financial statements are also published in the institute website as information for the public.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.4.2 - Funds / Grants received from non-government bodies, individuals, philanthropers during the year (not covered in Criterion III)

6.4.2.1 - Total Grants received from non-government bodies, individuals, Philanthropers during the year (INR in Lakhs)

0

File Description	Documents
Annual statements of accounts	View File
Any additional information	No File Uploaded
Details of Funds / Grants received from of the non-government bodies, individuals, Philanthropers during the year (Data Template)	View File

6.4.3 - Institutional strategies for mobilization of funds and the optimal utilization of resources

Institute maintains and follows a well-planned process for the mobilization of funds and resource. The process involves various committees of the institute as well as the Department Heads and Accounts office. Institute has designed some specific rules for the fund usage and resource utilization. The student Tuition fee is the major source of income of the institute for mobilization of funds. These funds are utilized for all recurring and non-recurring expenditure. The institution has a well-defined mechanism to monitor effective utilization of available financial resources for the

development of the infrastructure to augment academic needs. All the income generated by the various sources shall be deposited in Institute's bank account.

Mobilization Policy and Procedure

1. Before the financial year begins, Principal and Heads of Departments prepare the college budget.
2. The institutional budget includes recurring expenses such as salary, electricity and internet charges, stationary and other maintenance costs.
3. It includes planned expenses such as lab equipment purchases, furniture, and other development Expenses.
4. The budget is scrutinized and approved by the top management and Governing Council.
5. After final approval of budget the purchasing process is initiated by purchase committee which includes all head of departments and account officer, accordingly the quotations called and purchase orders are placed after final negotiations.
6. Accounts department and Purchase department monitor whether expenses are exceeding budget provision.
7. Statutory auditors are also appointed who certify the financial statements in every financial year.
8. The grants received by the college are also audited by certified auditors.

Utilization of Funds

1. A finance committee has been constituted to monitor the optimum utilization of funds for various recurring and non-recurring expenses.
2. The purchase committee seeks quotations from vendors for the purchase of equipment, computers, books, etc.
3. The quotations are scrutinized by the finance and purchase committee before a final decision is made based on parameters like pricing, quality, terms of service, etc.
4. The Principal, finance and purchase committees along with the accounts department ensure that the expenditure lies within the allotted budget. The intervention of the management is sought in case the expenditure exceeds the budget.
5. All transactions have transparency through bills and vouchers. The bill payments are passed after verification of items. Respective faculty member ensures that whether suitable equipment/machinery with correct specification is purchased.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes

Academic Year 2020-21; was found most challenging for outcome based education system of institute due to COVID-19 pandemic. In this period, all the academic activities gets ruined out and the online teaching learning process become a mandatory. The IQAC immediately took number of initiatives and decisions for smooth conduction of academic and administrative activities. All academic and administrative activities were planned and executed through online platform. Accordingly, a platform like Microsoft Teams was selected to execute all tasks. This platform was found significantly comfortable for student as well as teachers.

All theory and practical sessions were conducted through MS Teams platforms. The necessary student's IDs', class groups, faculty training were planned. The sessions were recorded so that, in case any student fails to join live class or practical session due to technical difficulty; she/he can download videos, and cover the missing content.

Through the same platform all practical sessions were also conducted and demonstrative sessions were discussed well with students. Virtual labs developed by various IITs, NITs, and Foreign universities were utilized well for practical demonstrations too.

For many of the subjects, e-content was developed and made available for students through institute website. A digital course material was found more helpful for students while facing university examinations through online mode. The presentations prepared using MS PowerPoint with appropriate animations, graphics, sound effects, videos; made all sessions more interactive and interesting for students.

Continues assessment was also one of the important task which was conducted very smoothly in this online teaching process. MCQs based Unit tests, periodic quiz sessions, assignments and their online

submissions; are few of the practices which helped to maintain the students in mainstream.

At the end of semester, university exams were conducted through online mode using proctor based systems of monitoring. Though, students as well as teachers were not conducive for such practices within a very short span all stake holders became comfortable and accepted this change. End semester results with brighten scores was the success of this newly implemented system.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

6.5.2 - The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

Academic and administrative audit (AAA) is conducted once in a semester to review teaching learning process, structures & methodologies of operations and learning outcomes. AAA format consists of various metrics such as administrative information, curricular aspects, teaching learning process, structured feedback and its analysis, research, innovation, publication details, collaboration and linkages, students progression, activities organized, achievements by faculty and students. A committee is constituted for smooth conduction of AAA. The schedule of audit is communicated well in advance to all departments. The auditors verify the documents related to all metrics and put their remark indicating, compliance (C), non-compliance (NC) and opportunities for improvement (OFI). IQAC analyses audited reports and communicate related to action to be taken for NC and OFI to departments. NCs are closed after due verification from auditors within a specified period. Department submits the action plan for parameters having remarks OFI.

In AY 2020-21, two academic and administrative audits are conducted.

File Description	Documents
Paste link for additional information	Nil
Upload any additional information	No File Uploaded

<p>6.5.3 - Quality assurance initiatives of the institution include: Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analyzed and used for improvements Collaborative quality initiatives with other institution(s) Participation in NIRF any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)</p>	<p>C. Any 2 of the above</p>
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File Description	Documents
Paste web link of Annual reports of Institution	https://zcoer.in/wp-content/uploads/2022/01/2.6.3_compressed.pdf
Upload e-copies of the accreditations and certifications	No File Uploaded
Upload any additional information	No File Uploaded
Upload details of Quality assurance initiatives of the institution (Data Template)	View File

INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 - Institutional Values and Social Responsibilities

7.1.1 - Measures initiated by the Institution for the promotion of gender equity during the year

Various curricular and co-curricular activities regarding gender equity and sensitization are conducted in AY 2020-21.

Women's Day was celebrated on 8th March 2021 through virtual platform. Various online talks were arranged focusing on empowerment of Women.

Specific Facilities for Women on Campus -

1. Spacious, clean and pleasant Girls Common Room.

2. Women Grievance Committee

3. Internal Complaint Committee

4. Anti-ragging cell in campus

4. Display of Policy on "SEXUAL HARASSMENT OF WOMEN AT WORKPLACE" in campus in every department.

File Description	Documents
Annual gender sensitization action plan	1. Celebration of Women's Day on 8 March 2021 and conducted activities focusing on empowerment of Women. 2. Poster Presentation Competition on between 22/03/2021 to 26/03/2021 1. Gender Equality 2. POSH Act 2013
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common Rooms d. Day care center for young children e. Any other relevant information	1. Specious, clean and pleasant Girls Common Room 2. Women Grievance Committee 3. Internal Complaint Committee 4. Anti-ragging cell in campus 4. Display of Policy on "SEXUAL HARASSMENT OF WOMEN AT WORKPLACE" in campus in every department.

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation measures Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power efficient equipment

A. 4 or All of the above

File Description	Documents
Geo tagged Photographs	View File
Any other relevant information	No File Uploaded

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

- The campus has an efficient system for waste management. The housekeeping team takes care of the segregation of solid waste which mainly includes waste paper, garden waste, and plastic

waste. Handling over the collected waste in a segregated manner to local authorities is practiced weekly.

- No biomedical waste is generated on the campus. In case of any occasions like blood donation camps, sports, etc.; care is taken to hand over the biomedical waste to authorized agencies whenever required.
- For the collection of E-waste separate drive is arranged once a year. The collected E-waste is handed over to authorized agencies.
- Dustbins with standard color codes are placed at various locations for dry, wet, and e-waste.
- A paper shredding machine is maintained by the store department and these shredded papers are donated to industrial activities. The use of one-sided pages is practiced.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	No File Uploaded
Geo tagged photographs of the facilities	https://zcoer.in/wp-content/uploads/2022/03/7.1.3.pdf
Any other relevant information	No File Uploaded

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus

B. Any 3 of the above

File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Any other relevant information	No File Uploaded

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows:

1. Restricted entry of automobiles
2. Use of Bicycles/ Battery powered

B. Any 3 of the above

<p>vehicles</p> <p>3. Pedestrian Friendly pathways</p> <p>4. Ban on use of Plastic</p> <p>5. landscaping with trees and plants</p>	
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File Description	Documents
Geo tagged photos / videos of the facilities	View File
Any other relevant documents	No File Uploaded

7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution

<p>7.1.6.1 - The institutional environment and energy initiatives are confirmed through the following 1.Green audit 2. Energy audit 3.Environment audit 4.Clean and green campus recognitions/awards 5. Beyond the campus environmental promotional activities</p>	<p>C. Any 2 of the above</p>
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File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	View File
Certification by the auditing agency	No File Uploaded
Certificates of the awards received	No File Uploaded
Any other relevant information	View File

<p>7.1.7 - The Institution has disabled-friendly, barrier free environment Built environment with ramps/lifts for easy access to classrooms. Disabled-friendly washrooms Signage including tactile path, lights, display boards and signposts Assistive technology and facilities for persons with disabilities (Divyangjan) accessible website, screen-reading software, mechanized equipment 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading</p>	<p>C. Any 2 of the above</p>
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File Description	Documents
Geo tagged photographs / videos of the facilities	View File
Policy documents and information brochures on the support to be provided	No File Uploaded
Details of the Software procured for providing the assistance	No File Uploaded
Any other relevant information	No File Uploaded

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 200 words).

Various initiatives in the form of celebration of National and international days, National Festivals, NSS activities, etc. are adopted by bringing students and teachers with diverse background on single platform for creating inclusive environment. These activities help in developing tolerance harmony towards culture, region and linguistics and also communal social economics and other diversities.

The subject Constitution of India and professional ethics is made mandatory to all UG students across disciplines.

Functions like, welcome ceremony for freshly admitted students with induction program and farewells for outgoing batch is a regular practice. Days like traditional day, Marathi Bhasha Din, Shivajayanti, etc. are celebrated annually.

Considering entry level curriculum of engineering student one foreign language training was planned and around 300 students were trained up to Level IV of Japanese Language. This helped to get acquainted with Japanese literature and culture.

Due to COVID-19 outbreak in the AY 2020-21 these events were celebrated by following all restrictions laid by local governing authorities. A distribution of grocery and essentials to all nonteaching employees was one of the initiative taken place in this pandemic.

File Description	Documents
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View File
Any other relevant information	No File Uploaded

7.1.9 - Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens

The institution sensitizes the students and the employees to the constitutional obligations about values, rights, duties and responsibilities and constantly works upon to nurture them as better citizens of the country through various curricular and extra-curricular activities.

Every year Republic day is Celebrated on 26th Jan by organizing activities highlighting the importance of Indian Constitution. Similarly constitution day also celebrated on 26th Nov every year. Independence day is also celebrated on 15th August every year to highlight struggle of freedom and importance of Indian constitution. The college establishes policies that reflect core values. Code of conduct is prepared for students and staff and everyone should obey the conduct rules. The institution encourages participation of students in Sports and Games, NCC and NSS at National level to strengthen nationwide bond and relation.

The institution takes many initiatives like conducting awareness campaigns, organizing orientation & training program, seminars and workshops to sensitize the future leaders to inherit human values coping with the constitutional obligations. Ethical Values, rights, duties and responsibilities of citizens are some of the topics that are enlisted in Elocution/ Debates activities. Every year institute organizes blood donation camp in association with District Civil District General Hospital and/or Rotary Club. The students are sensitized on the importance of the activity and are encouraged to participate in saving the life of citizens of India.

File Description	Documents
Details of activities that inculcate values; necessary to render students in to responsible citizens	No File Uploaded
Any other relevant information	No File Uploaded

<p>7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff 4. Annual awareness programmes on Code of Conduct are organized</p>	<p>D. Any 1 of the above</p>
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File Description	Documents
Code of ethics policy document	View File
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	No File Uploaded
Any other relevant information	No File Uploaded

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

Institution celebrates/ organizes national and international commemorative days, events and festivals. National festivals play an important role in planting seed of Nationalism and Patriotism among people of India. Our institution celebrates these events with great enthusiasm to commemorate the ideology of nationalism and to pay tribute to our great National Leaders. The Faculty, Staff and Students of the institution all come together under one umbrella to celebrate these occasions and spread the message of Unity, Peace, Love and Happiness throughout.

Republic Day- The institution celebrates Republic day on 26th January every year, commemorating the adoption of Indian constitution and spreading the message that India is the largest democratic country in the world. This is a day to remind the students about the constitution of the country and the need to abide by it at all times. The celebration includes the hoisting of national flag and spreading a warm message of nationalism in a speech by the Principal.

Independence Day is celebrated every year on 15th of August, parades and flag hoisting is organized and is celebrated to mark freedom of India from British rule. The institution encourages students to remember our national leaders and their sacrifices.

Gandhi Jayanti is celebrated every year on 2nd October to understand the ideology of our great leader Mahatma Gandhi wherein pledge is taken by students and staff. In today's times we inspire students of our institution to follow the Gandhian ideologies of truth and nonviolence and inspire them to contribute towards the peace and prosperity of the Nation.

Sadbhavana Diwas celebrated on 20th August every year to commemorate the birth Anniversary of Sardar Vallabh Bhai Patel.

International Yoga day is celebrated on 21st June every year. The yoga Instructor organizes the yoga camp and a speech is conducted to make everyone aware on how Yoga embodies unity of mind and body; thought and action; restraint and fulfillment.

Voters Day is celebrated on 25th January wherein the students are given awareness on their duties and rights as a loyal citizen. Several departments are also actively involved in organising events involving students, and staffs:

File Description	Documents
Annual report of the celebrations and commemorative events for the last (During the year)	View File
Geo tagged photographs of some of the events	View File
Any other relevant information	No File Uploaded

7.2 - Best Practices

7.2.1 - Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Best Practice 1

1. Title of the Practice

Project Based Learning (PBL) to practice participative pedagogical learning experience.

2. Objectives of the Practice

The objectives of this activity can be listed as;

1. To engage students in constructive learning environment and develop self-learning abilities.
2. To develop critical thinking and solving engineering problems by exploring and proposing sustainable solutions.
3. To integrate knowledge and skills from various engineering areas.
4. To develop professional skills, team building and coordination skill.

After implementation of such kind of learning tools, students found able to identify the social needs and convert them as an idea for product development or service. Another advantage was observed that students could analyze and design the model. The model may be physical or mathematical, depending on the problem handled.

3. The Context

In the online teaching learning practice the major challenge for a subject teacher was to keep students on board, not physically but mentally. It was observed while conducting online sessions, that many students were in need of the participative study. A conventional practices like seminars, presentations, group discussions, etc. were found somehow less effective in such virtual teaching practices. To overcome this difficulty of students it was decided to plan activities which can demonstrate the important attributes like communication, presentation, organization, time management, research, inquiry, self-assessment, group participation, leadership and critical thinking. Project based learning well accepted by students.

4. The Practice

For effective Project based learning experience to students, the activity was planned as:

- Formation of groups of 4 to 5 students and allocation of faculty mentor to each group.
- Assigning identified / global problem to work on PBL activity.
- Arranging periodic reviews and assessment based on Idea Inception (5%), Solution provided / final product at end of

course (50%), Documentation in the form of PBL report (typed, hard copy) (15%), Presentation/ Demonstration of model/ PPT/ poster (10%), Participation/ involvement in group activity (10%), Publication / participation on technical platform (10%).

- Ranking of ideas.
- Providing global platform to these ideas through institute website.

5. Evidence of Success:

As per planning around 765 students participated and worked on PBL activities. Total 195 groups enjoyed and learned through self-developed; software based / mathematical / laboratory scale physical models. The ranking approach motivated students for enthusiastic participation.

6. Problems Encountered and Resources Required

In this academic year major problem was lack of direct communication with students with mentor. Though virtual platform are more user friendly, considering internet connectivity issues in rural areas, inadequacy of necessary hardware and software support the PBL activity extended beyond planned duration on student demand.

Best Practice 2

1. Title of the Practice

Development of E-content for effective teaching and learning practice in virtual mode

2. Objectives of the Practice

The objectives of this activity can be listed as;

1. To develop infrastructural facility for e-content development.
2. To develop e-content for various subjects of different engineering programs.
3. To make available, the developed e-content on institute website for remotely located students.

In the COVID-19 pandemic, when it was found most difficult to maintain students in mainstream of teaching learning process; the e-

content access made this affordable and available 24X7. More than 100 videos aligned to various courses are made available for students with no cost. All these videos are recorded in specially designed and developed recording rooms with all necessary hardware and software support.

3. The Context

When all the students were get academically affected due to COVID 19 pandemics and facing difficulties to get acquainted with routine lecture or practical sessions, the E- content provided them great support. Another challenge while developing the digital content was faculty trainings to use virtual platform. It took some time to develop the competent videos including quality recording with necessary editing.

4. The Practice

To develop the quality content in digital format, the activities were streamlined as:

- Development of recording room with all necessary hardware and software facilities.
- Providing trainings regarding e-content development to teachers.
- Recording of videos and quality checks from senior subject teachers.
- Making available these videos through institute website to all students.

5. Evidence of Success:

As per planning around 197 videos of various courses were developed. Total 10 faculties were involved in this activity. The recorded video sessions were made available through YouTube channel and The Zeal Academy portal.

6. Problems Encountered and Resources Required

The challenges in e- content development were; to make teachers comfortable with such non-conventional approach of teaching and additional skill set development for effective delivery. The subject teachers were provided with sufficient time to compile quality study material to share in video lectures. The teachers were motivated to get necessary trainings for delivering best video sessions using advanced editing tools, graphics, animation, etc. Few online courses

through reputed platforms like coursera, NPTEL, etc. were recommended for teachers.

For developing good quality of e-content there is a need of original course content, good hardware support and expert technical manpower from the field of video editing.

File Description	Documents
Best practices in the Institutional web site	No File Uploaded
Any other relevant information	No File Uploaded

7.3 - Institutional Distinctiveness

7.3.1 - Portray the performance of the Institution in one area distinctive to its priority and thrust within 200 words

Academic Year 2020-21; was found most challenging for outcome based education system of institute due to COVID-19 pandemic. In this period, all the academic activities gets ruined out and the online teaching learning process become a mandatory. The institute immediately took a decision to execute all academic activities through online platform. Accordingly, a platform like Microsoft Teams was selected to execute all tasks. This platform was found significantly comfortable for student as well as teachers.

All theory and practical sessions were conducted through MS Teams platforms. The necessary students IDs' class groups, faculty training were planned. The session were able to record so that, in case any students fails to join live class or practical session due to technical difficulty; sh/he can download videos; later and cover the missing content.

Through the same platform all practical sessions were also conducted and demonstrative sessions were discussed well with students. Use of virtual labs developed by various IITs, NITs, and Foreign universities were utilized well for practical demonstrations too.

For many of the subjects, e-content was developed and made available for students through institute website. A digital course material was found more helpful for students while facing university examinations through online mode. The presentations prepared using MS PowerPoint with appropriate animations, graphics, sound effects, videos; made all sessions more interactive and interesting for students.

Continues assessment was also one of the important task which was conducted very smoothly in this online teaching process. MCQs based Unit tests, periodic quiz sessions, assignments and their online submissions; are few of the practices which helped to maintain the students in mainstream.

At the end of semester, university exams were conducted through online mode using proctor based systems of monitoring. Though, students as well as teachers were not conducive for such practices within a very short span all stake holders became comfortable and accepted this change. End semester results with brighten scores was the success of this newly implemented system.

File Description	Documents
Appropriate web in the Institutional website	No File Uploaded
Any other relevant information	No File Uploaded

7.3.2 - Plan of action for the next academic year

1. To grab the opportunity of pandemic by organizing numerous guest/ expert lectures, virtual tours in online mode
2. To provide student training program with global certification,
3. To celebrate national and international commemorative days, events, festivals
4. To organize awareness program about National Education Policy 2020
5. To increase the collaborative activities with industry